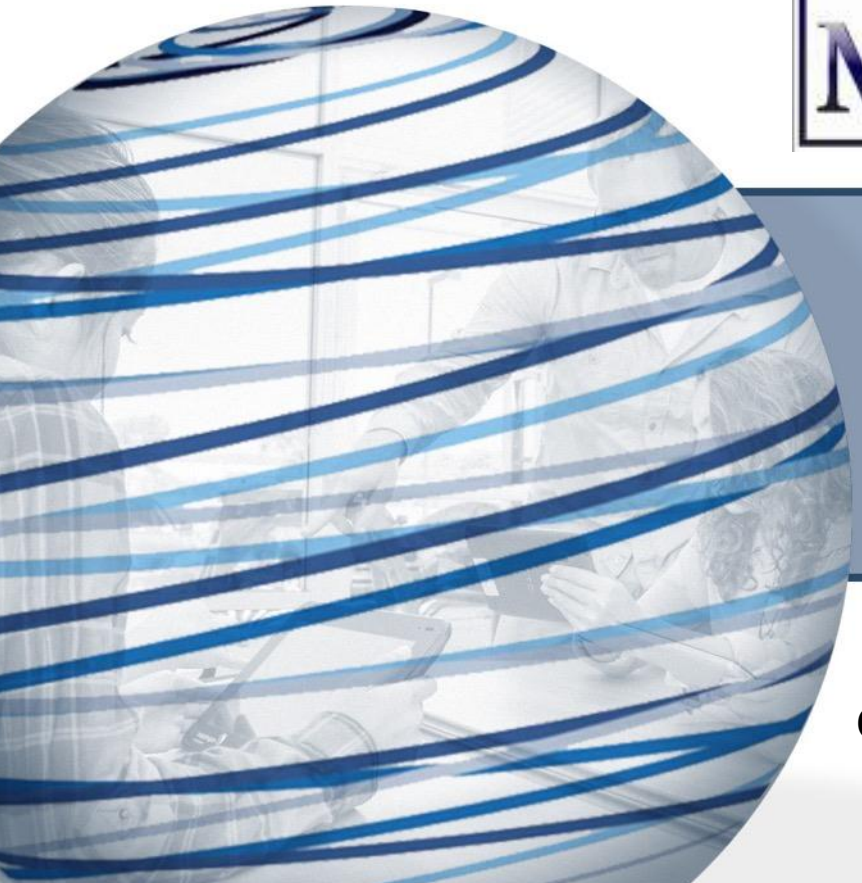


Building the Capacity for Transformation: Two Frameworks for Technology-Infused School Systems

Dr. Sheryl Abshire - @sherylabshire

Chief Technology Officer, CoSN Board Member

Calcasieu Parish Public Schools

Lake Charles, Louisiana

CoSN empowers educational leaders to leverage technology to create and grow engaging learning

Core Value

Using technology effectively is human, not technical.

Our People

School System Technology and Education Leaders

CoSN Membership

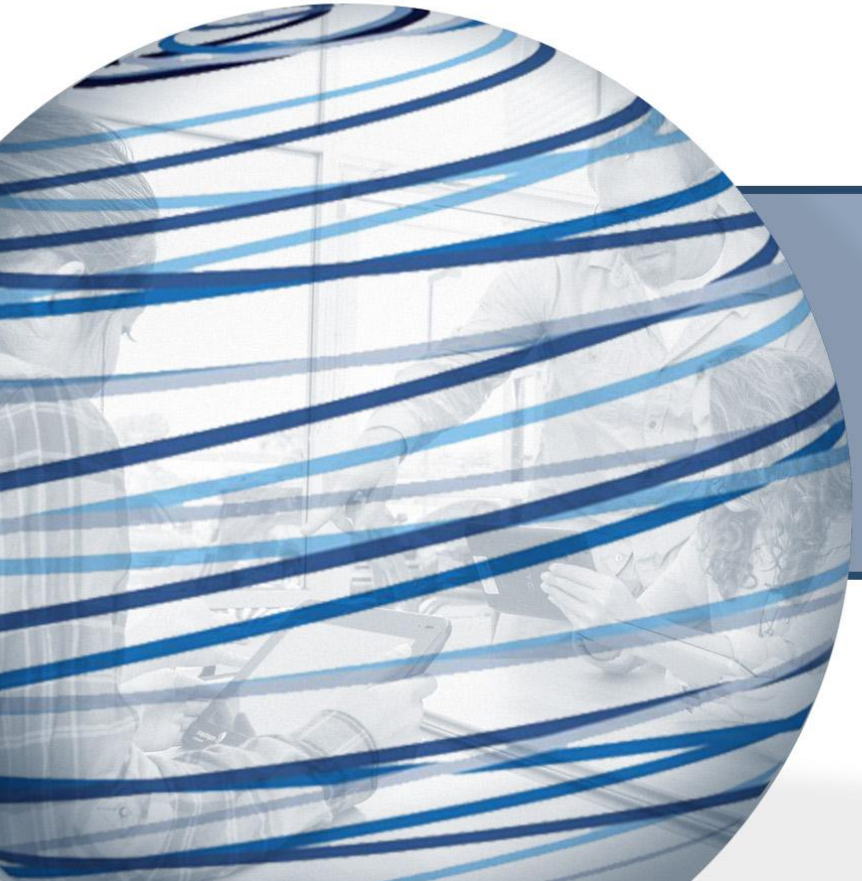
District technology leaders

- Chief Technology Officers (CTOs), Directors

District education leaders

- Superintendents, Heads of Instruction, Finance, etc.

Policy makers and influencers from the public and private sectors



Framework for School System Technology Success

3

- Three years to transform teaching and learning when taking the digital leap.
- Three years from, “Please don’t make me do this” to “I could never go back to the old way.”
- Three years to get teachers to be effective with new practices enabled by technology.
- Three years – if all goes well.

Conditions for Success

- Leadership & Vision
- Strategic Planning
- Ethics & Policies
- Instructional Focus & PD
- Team Building & Staffing
- Stakeholder Focus
- Infrastructure
- Information & Data Management
- Communications Management
- Business Management

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Year 0

Ideally everything is ready in Year 0,

but you have to prioritize

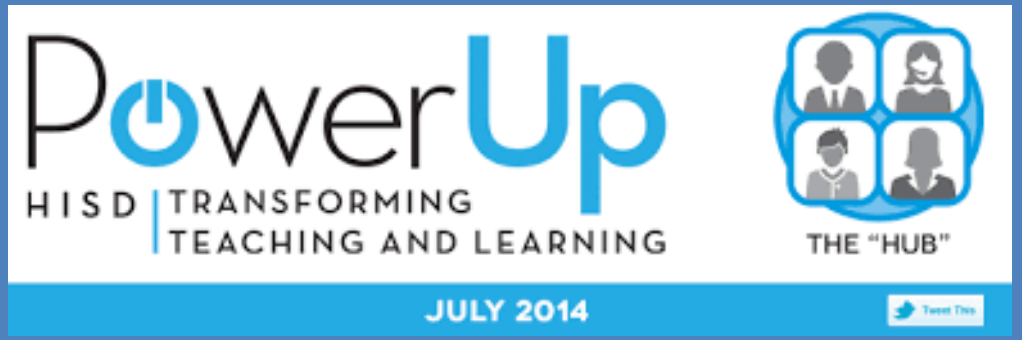

WHY?

- Need a shared vision of teaching and learning
- More compelling than engagement or acceding to digital natives
- Transformation calls for an innovative stance

- Innovation requires distributed decision making
- Distributed decision making demands a clear vision to keep teams aligned
- A true north to keep decisions from being scattered

Branding

Initiative needs an identity – A name –
Compelling story why – Shared with everyone



- Program Management
  - The roll-out
- Infrastructure Readiness
- Policies
- Curriculum
- Instructional Approaches

Year 1

- At the beginning of Year 1 - resources and structures in place for a successful “shakedown cruise” to find and fix all problems and issues
- End of Year 1, teachers comfortable with using technology in the classroom daily

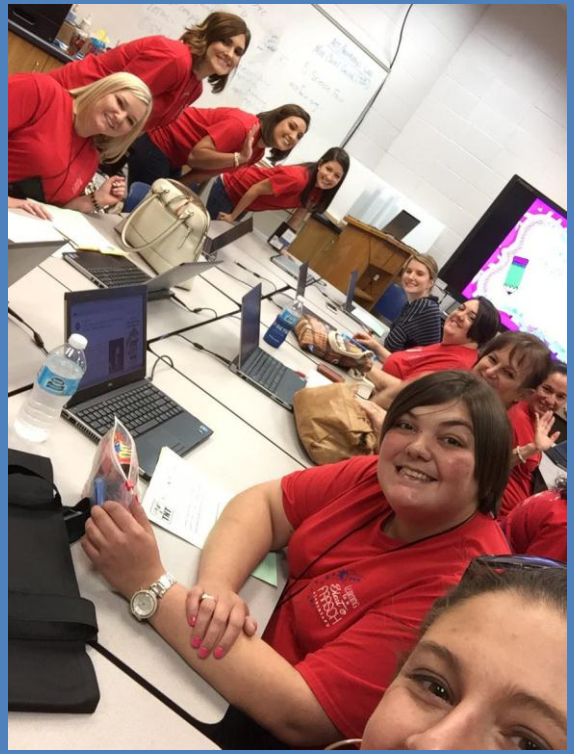
Autonomy For Schools

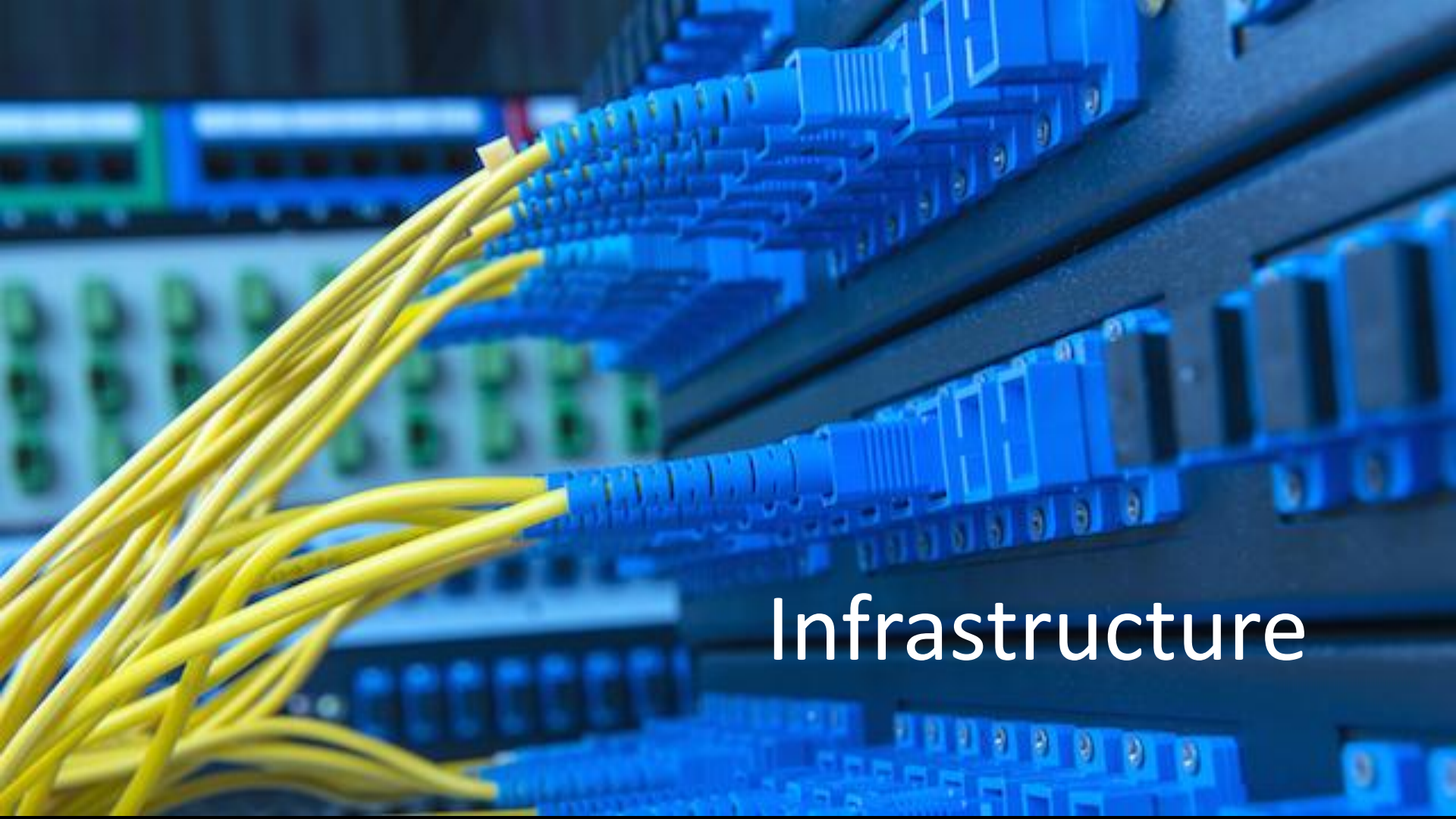
- Clear vision that all take ownership of
- Clear goals and metrics identified
- Schools have freedom in how to achieve them

Professional Development

Professional Development

- Tools and technology
- How to use technology in an engaged student-centered classroom
- Different modes of PD available:
  - Social media, virtual, blended learning or face-to-face & shoulder-to-shoulder coaching
  - Using whatever options best fit the needs of the teachers.




Infrastructure

- Access points, routers, switches, firewalls, filters, security appliances, WAN and Internet connection all need to support initial usage
- Initial usage may be comparatively low as teachers/students acclimate
- Usage may be artificially low if the network is bad enough that people just stop using it
- Expect usage to increase every year
- The FCC suggests 1Mbps per student
- Monitor your own usage and plan for up to 60% YoY growth
- Begin the process of building out scalable infrastructure that will support your needs – 5 years for appliances, 20 years for WAN

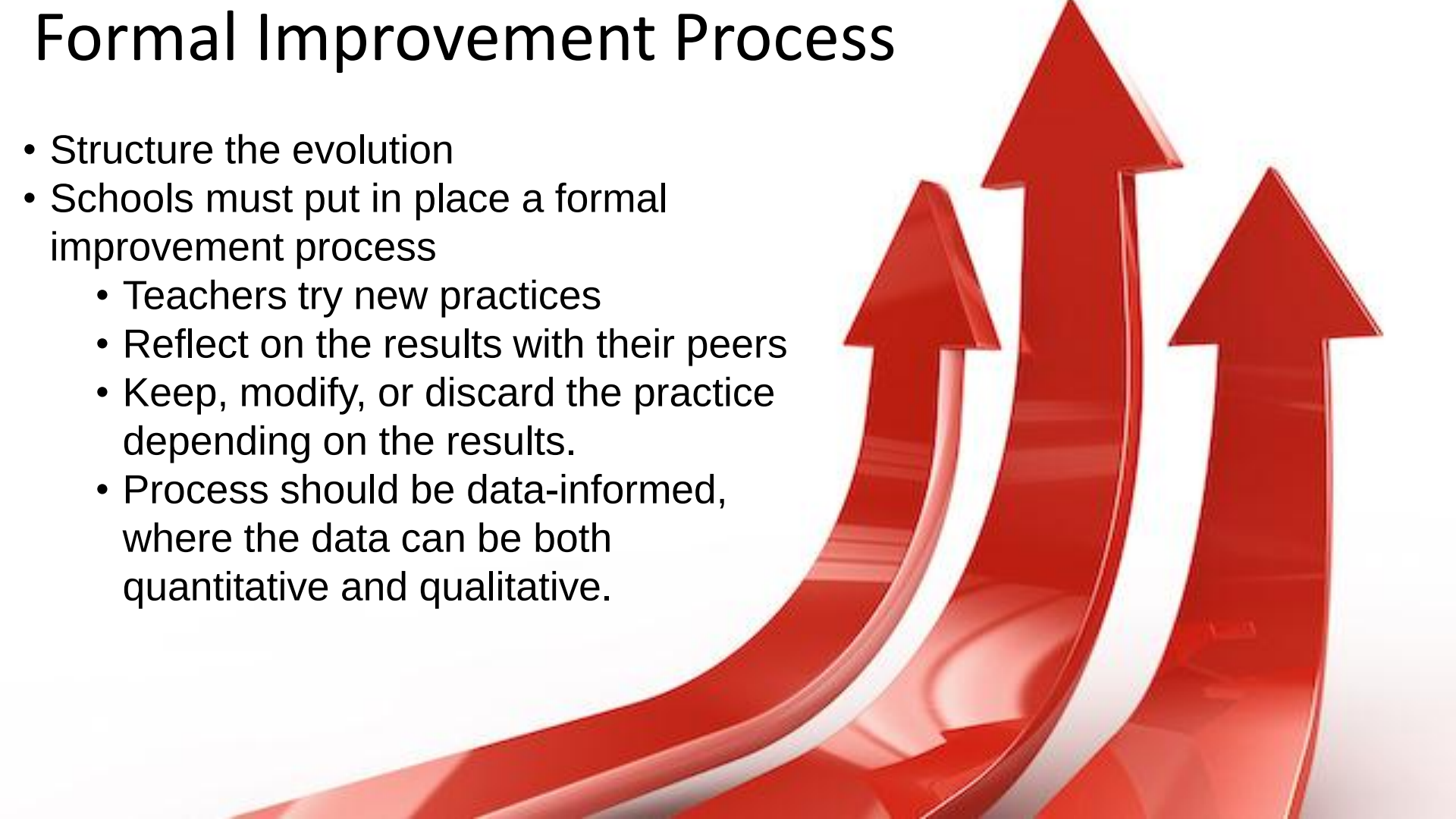
Marketing

- The district effectively markets the digital leap program to parents, students, teachers, press, and community
- When the inevitable stumbles happen, the district communicates proactively about what happened, what was done about it, and why it won't happen again

Year 2

Formal Improvement Process

- Structure the evolution
- Schools must put in place a formal improvement process
    - Teachers try new practices
    - Reflect on the results with their peers
    - Keep, modify, or discard the practice depending on the results.
    - Process should be data-informed, where the data can be both quantitative and qualitative.



Ongoing Professional Development

- Teachers use data to modify instruction
- Teachers are evolving their practice and using data to evaluate what is working and what isn't
- The district sets both cognitive and non-cognitive outcomes as paired goals

More Professional Development

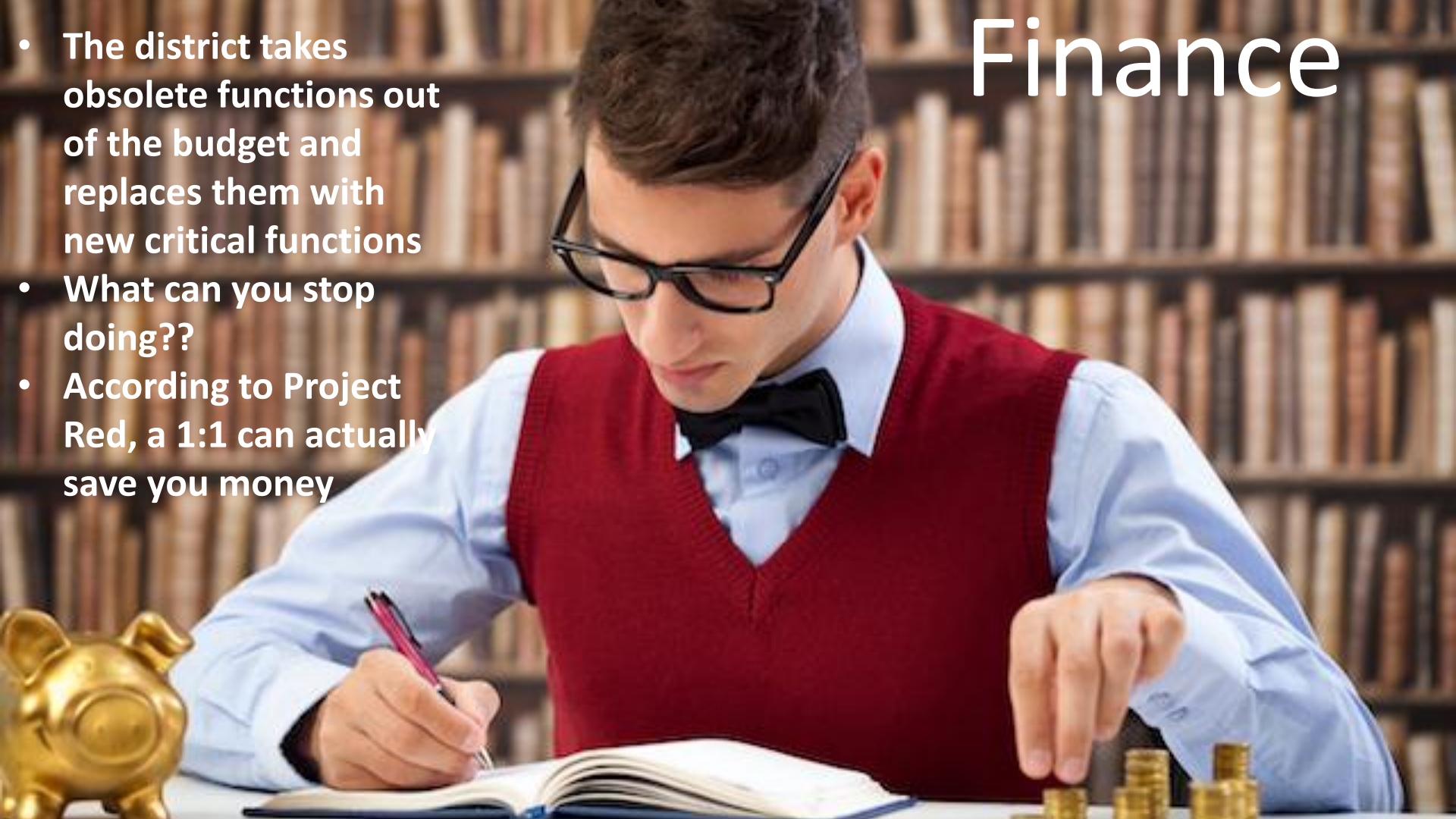
Work and Learning Environment

Work and Learning Environment

- To support prudent risk-taking and schools as learning organizations, it is the role of the district and building leadership to create an intrinsically motivating work and learning environment, providing principals, teachers, students, and staff with the opportunity for autonomy, mastery, and meaning.
- The district should eliminate obsolete functions and align resources to new goals
- The district has clear lines of communication to enable distributed decision making

Finance

- The district takes obsolete functions out of the budget and replaces them with new critical functions
- What can you stop doing??
- According to Project Red, a 1:1 can actually save you money



Year 3

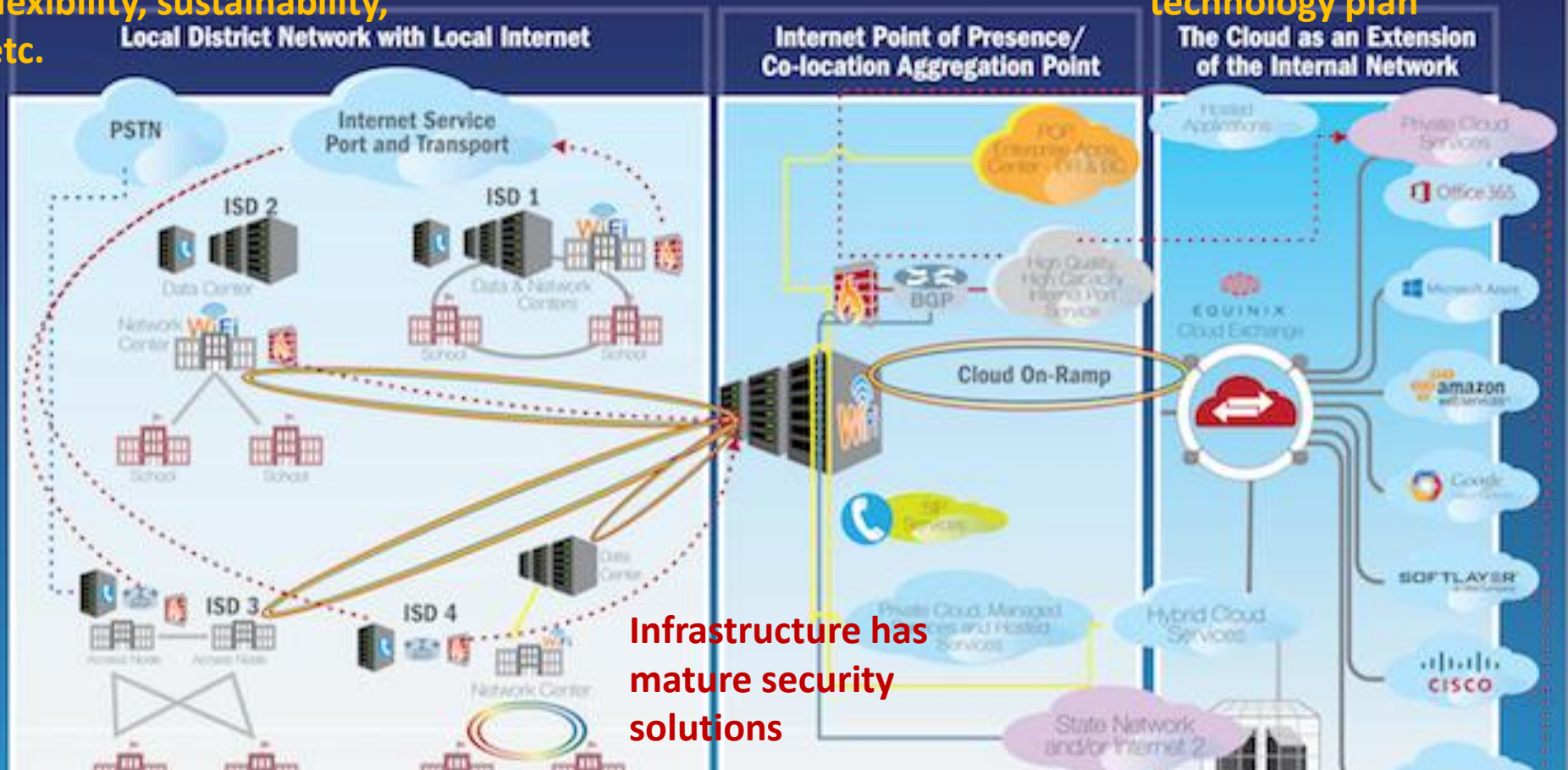
Sustainability

- All of Year 0-2 in place
- End of year 3, all teachers should be comfortable and capable of using technology in a student-centered classroom.
- They should be advanced in their ability to use a mature data-informed improvement process to continually evolve their practice.
    - Often 20% who can’t or won’t adapt to the change, and after 3 years, it is time for them to seek other opportunities.
- By year 3 the district must have reliable, ongoing, appropriate funding mechanisms for infrastructure, devices, digital tools and content, professional development and technical support.

Architected for growth, scalability, reliability, flexibility, sustainability, etc.

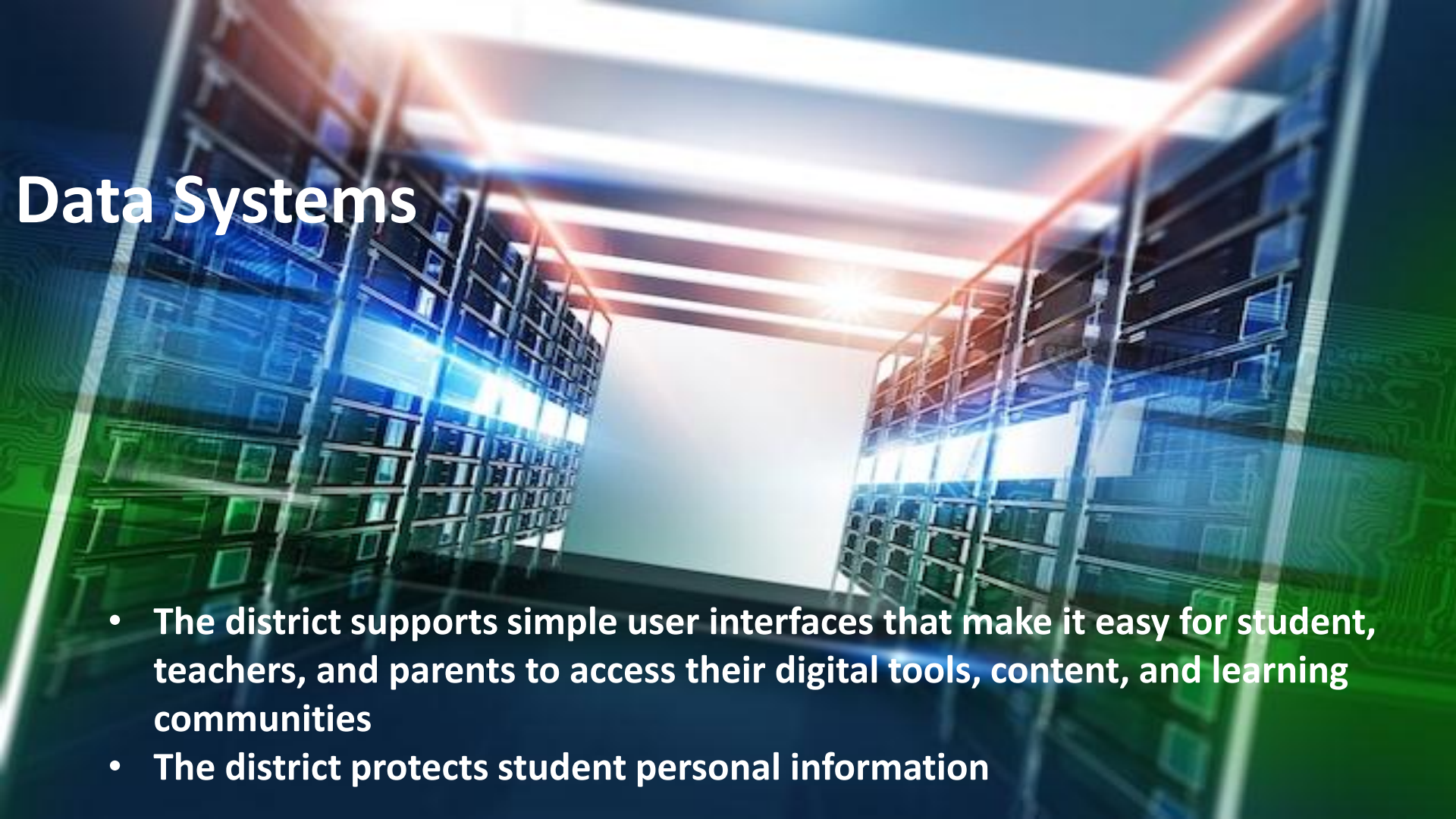
Smart Networks

Being built out in accordance with a technology plan



Infrastructure has mature security solutions

Data Systems



- The district supports simple user interfaces that make it easy for student, teachers, and parents to access their digital tools, content, and learning communities
- The district protects student personal information

Ethics and Policies

- Policies in place for legal compliance (should have been there all along), responsible use, social media and e-mail
- Policies in place for data storage and retention, data security, student privacy, environmental protection
- Regular review of policies for effectiveness

Outreach

- The district has great communications mechanisms to keep parents and the community involved and aware
- May include teacher blogs and photos
- Student work on-line
- Virtual classroom visits
- Photos of new hardware being installed and showing progress
- The district does a great job of marketing it’s program

Going Forward

- Moving ahead, the district will find that it's vision will evolve based on what they learn and the goals they reach.
- Continually reflect on the vision and goals to keep them relevant.
- Transformation is not an end-goal, it is an on-going process.
- With the investment of 3 years, schools can become learning organizations that are in fact platforms for continual, ongoing transformation.
- Infrastructure will continue to grow – possibly an order of magnitude in capacity every 5 years
- Professional Development is ongoing and the evolving practice of teachers in a formal improvement process will see growth and success accelerate
- There is a lot of block and tackle, a few key aspirational practices, and two underlying critical factors
    - A clear, shared vision
    - An intrinsically motivating place of work and learning

Framework for School System Technology Success

http://www.cosn.org/schoolsuccess

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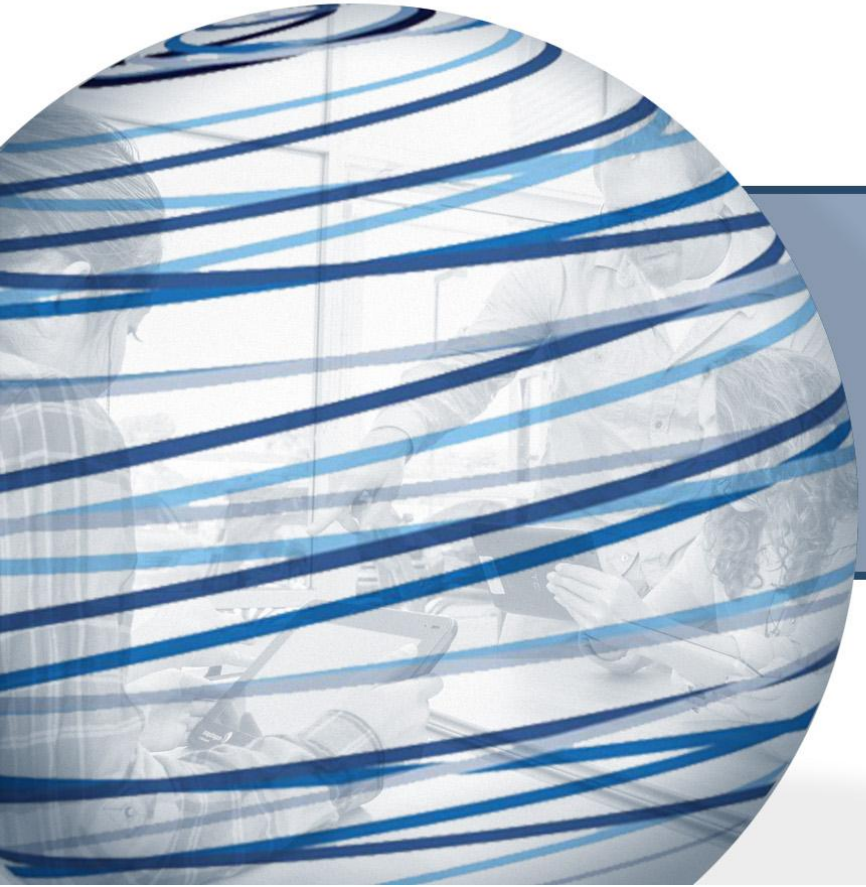
Value of the Framework

"I find this document to be one of the best IT planning documents that I have found in my 27 years in Information Technology."

Ed Leypoldt
Chief Information Officer
East Brunswick Public Schools
East Brunswick Township, NJ

CoSN Peer Review

- New CoSN Resource based on Framework for School System Technology Success
- Designed to support schools planning for a digital conversion
- Team of 2-3 experienced ed-tech leaders will perform advance and onsite field work
    - Team will conduct Interviews with staff members from principals and teachers to cabinet level staff
- Final report provided to the Superintendent and/or leadership team highlighting alignment between actual practice and best practices



Framework of Essential Skills
Building Human Capacity

A Unique Skill Set

Successful education technology professionals must not only have an intimate understanding of **current and emerging trends in technology**, they must know how to **apply them in the educational environment**.

Why Certification?

- Demonstrates skills to use technology strategically
- Elevates the profession within the district
- Validates importance of working across departments

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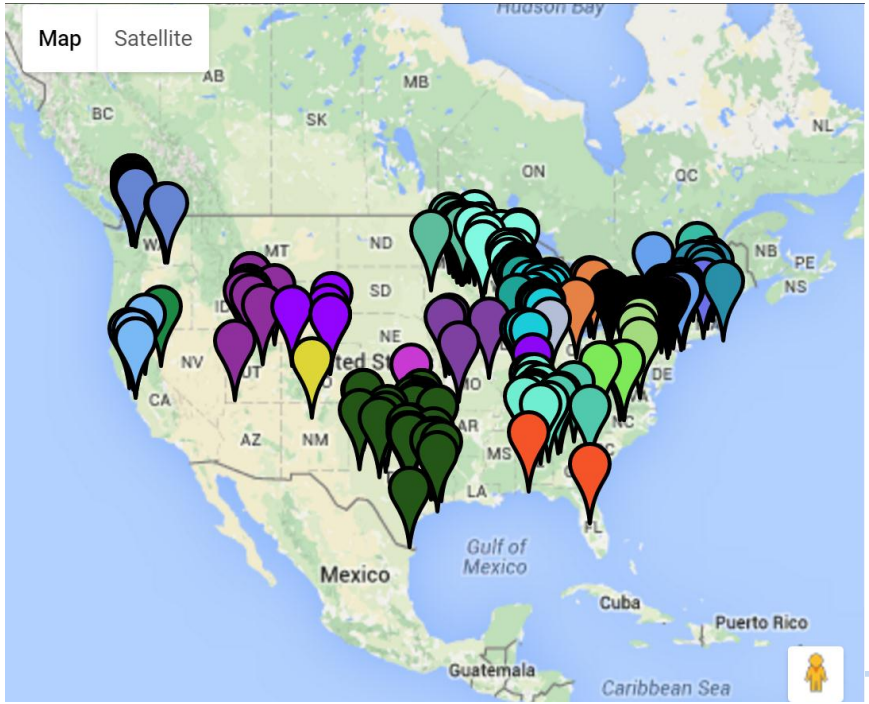
CETL Adoption



Visit our interactive directory at:

cosn.org/certification/cetl-directory

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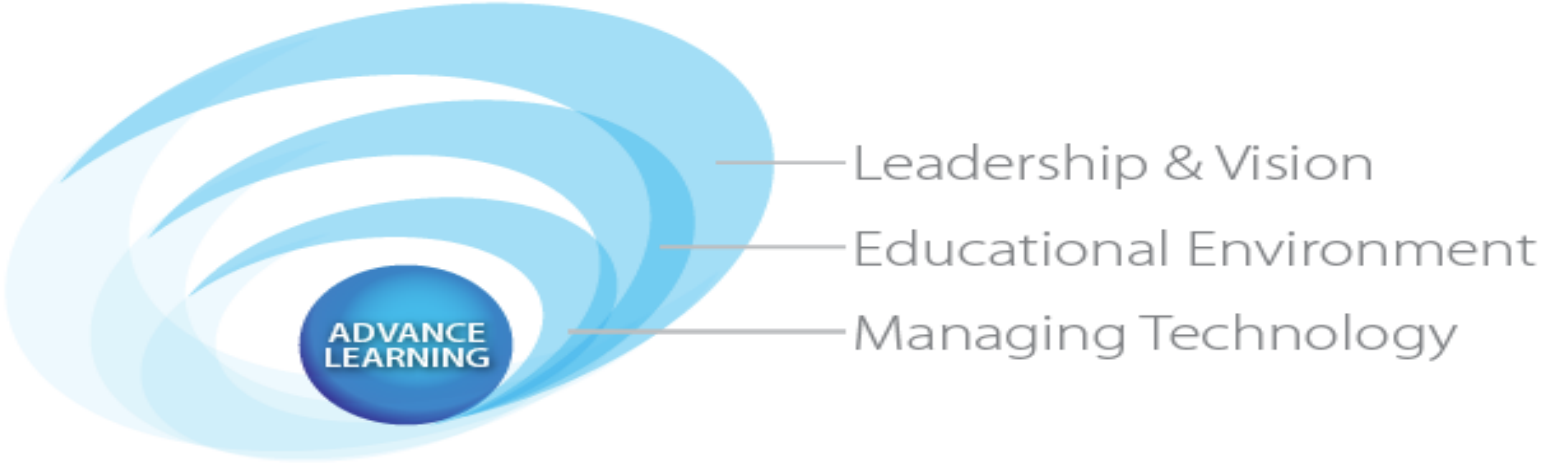

FRAMEWORK

of Essential Skills of the K-12 CTO

www.cosn.org/framework

www.cosn.org/certification

Use of Framework

- **Self-assess**
- **Describe** the CTO role within the district leadership structure
- **Validate** skills and knowledge of CTOs
- **Guide** the CTO interview and hiring process
- **Provide** roadmap for professional development
  Illustrate the need for partnering with other departments

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Certified Education Technology Leader (CETL®)

- **Based on the Framework**
- **Created by CTO's**
- **Governed by Certification Governance Committee (CGC)** with combined total of more than 160 years of ed technology experience

Hear from a new CETL®

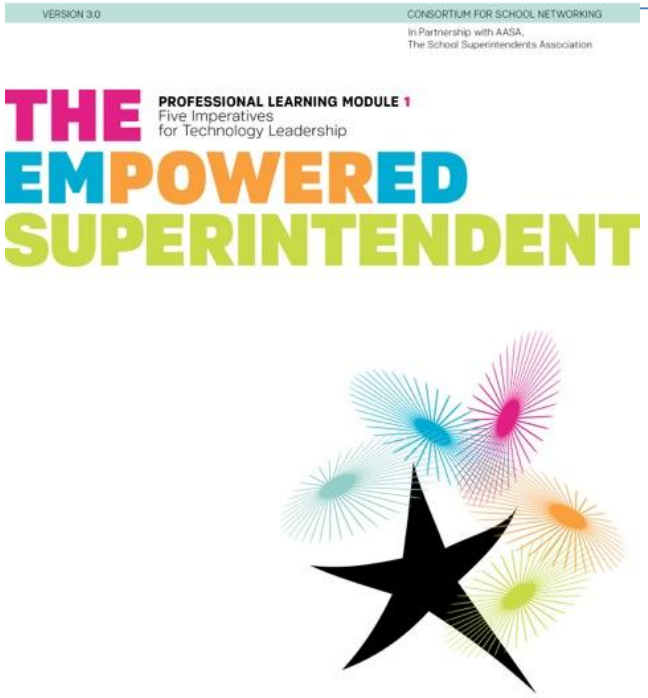
"CoSN has energized me! After 15 years in educational technology, I wanted to focus more on the District as a whole and change my role from that of a manager, to a leader. This experience has been wonderful for me and it is just the beginning.“

- Cindy Johann, CETL, District Technology Coordinator, Carroll County Schools, Carollton, KY

CETL® Eligibility Requirements

- **Education –** Bachelor's degree
- **Experience –** Four years of education technology experience (demonstrable experience in the three primary skill areas)
- **Ethics –** Sign Code of Conduct and Terms of Confidentiality

The Empowered Superintendent Module 1



5 Imperatives for Technology Leadership:

- Strengthen District Leadership and Communications
- Raise the Bar with Rigorous, Transformative and Innovative Learning and Skills
- Transform Pedagogy with Compelling Learning Environments
- Support Professional Development and Communities of Practice
- Create Balanced Assessments

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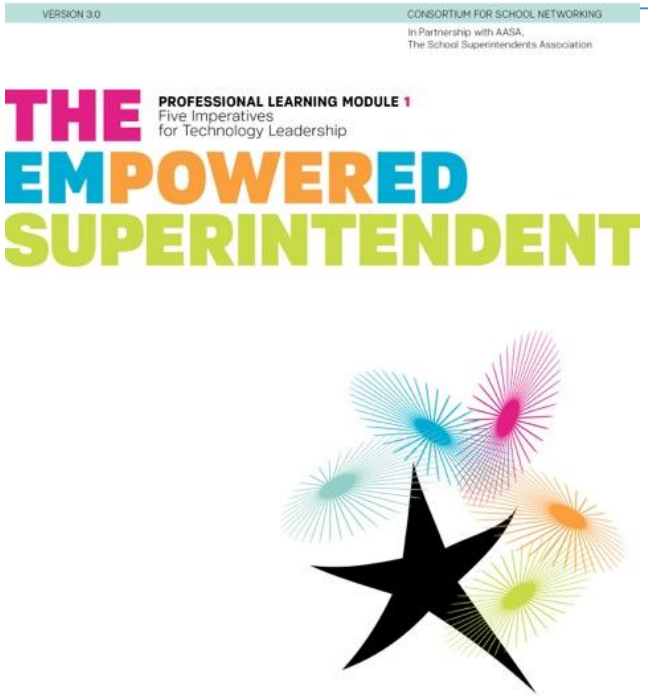
The Empowered Superintendent Module 2

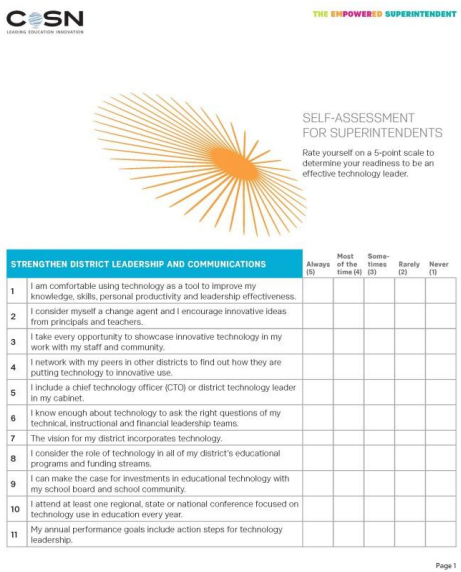


4 Action Steps for Strengthening the Technology Leadership Team:

- Recognize and better understand the evolving role of the CTO
- Identify the role of the CTO in the district structure, preferably in the cabinet
- Help guide the CTO interview and hiring process, seeking candidates with CETL credentials.
- Target professional training needs to build your technology staff to the CETL level.

Free Practical Tools: Self-Assessments

Self-Assessment for Superintendents



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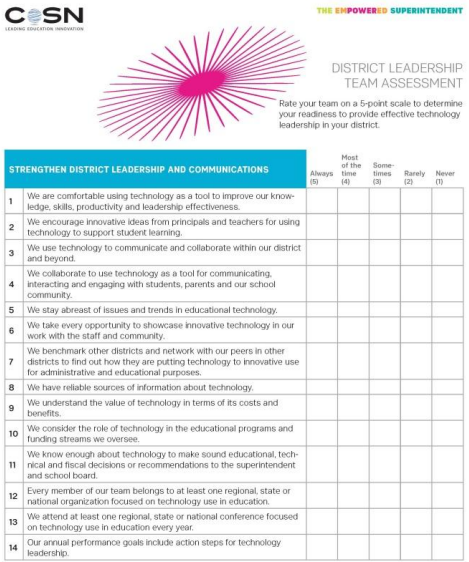
SELF-ASSESSMENT FOR SUPERINTENDENTS

Rate yourself on a 5-point scale to determine your readiness to be an effective technology leader.

	STRENGTHEN DISTRICT LEADERSHIP AND COMMUNICATIONS	Always (5)	Most of the time (4)	Some-times (3)	Rarely (2)	Never (1)
1	I am comfortable using technology as a tool to improve my knowledge, skills, personal productivity and leadership effectiveness.					
2	I consider myself a change agent and I encourage innovative ideas from principals and teachers.					
3	I take every opportunity to showcase innovative technology in my work with my staff and community.					
4	I network with my peers in other districts to find out how they are putting technology to innovative use.					
5	I include a chief technology officer (CTO) or district technology leader in my cabinet.					
6	I know enough about technology to ask the right questions of my technical, instructional and financial leadership teams.					
7	The vision for my district incorporates technology.					
8	I consider the role of technology in all of my district's educational programs and funding streams.					
9	I can make the case for investments in educational technology with my school board and school community.					
10	I attend at least one regional, state or national conference focused on technology use in education every year.					
11	My annual performance goals include action steps for technology leadership.					

Page 1

District Leadership Team Assessment



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DISTRICT LEADERSHIP TEAM ASSESSMENT

Rate your team on a 5-point scale to determine your readiness to provide effective technology leadership in your district.

	STRENGTHEN DISTRICT LEADERSHIP AND COMMUNICATIONS	Always (5)	Most of the time (4)	Some-times (3)	Rarely (2)	Never (1)
1	We are comfortable using technology as a tool to improve our knowledge, skills, productivity and leadership effectiveness.					
2	We encourage innovative ideas from principals and teachers for using technology to support student learning.					
3	We use technology to communicate and collaborate within our district and beyond.					
4	We collaborate to use technology as a tool for communicating, interacting and engaging with students, parents and our school community.					
5	We stay abreast of issues and trends in educational technology.					
6	We take every opportunity to showcase innovative technology in our work with the staff and community.					
7	We benchmark other districts and network with our peers in other districts to find out how they are putting technology to innovative use for administrative and educational purposes.					
8	We have reliable sources of information about technology.					
9	We understand the value of technology in terms of its costs and benefits.					
10	We consider the role of technology in the educational programs and funding streams we oversee.					
11	We know enough about technology to make sound educational, technical and fiscal decisions or recommendations to the superintendent and school board.					
12	Every member of our team belongs to at least one regional, state or national organization focused on technology use in education.					
13	We attend at least one regional, state or national conference focused on technology use in education every year.					
14	Our annual performance goals include action steps for technology leadership.					

CTO Self-Assessment

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SELF-ASSESSMENT FOR CHIEF TECHNOLOGY OFFICERS AND TECHNOLOGY STAFF

10 Essential Skill Areas in Three Professional Categories

LEADERSHIP & VISION
1. Leadership & Vision
2. Strategic Planning
3. Ethics & Policies

UNDERSTANDING THE EDUCATIONAL ENVIRONMENT
4. Instructional Focus & Professional Development
5. Team Building & Staffing
6. Stakeholder Focus

MANAGING TECHNOLOGY & SUPPORT RESOURCES
7. Information Technology Management
8. Communication Systems Management
9. Business Management
10. Data Management

Plus: **CORE VALUES & SKILLS** — Critical personal skills and behaviors

—CoSN's Framework of Essential Skills of the K-12 CTO

http://www.cosn.org/superintendents

COSN LEADING EDUCATION INNOVATION

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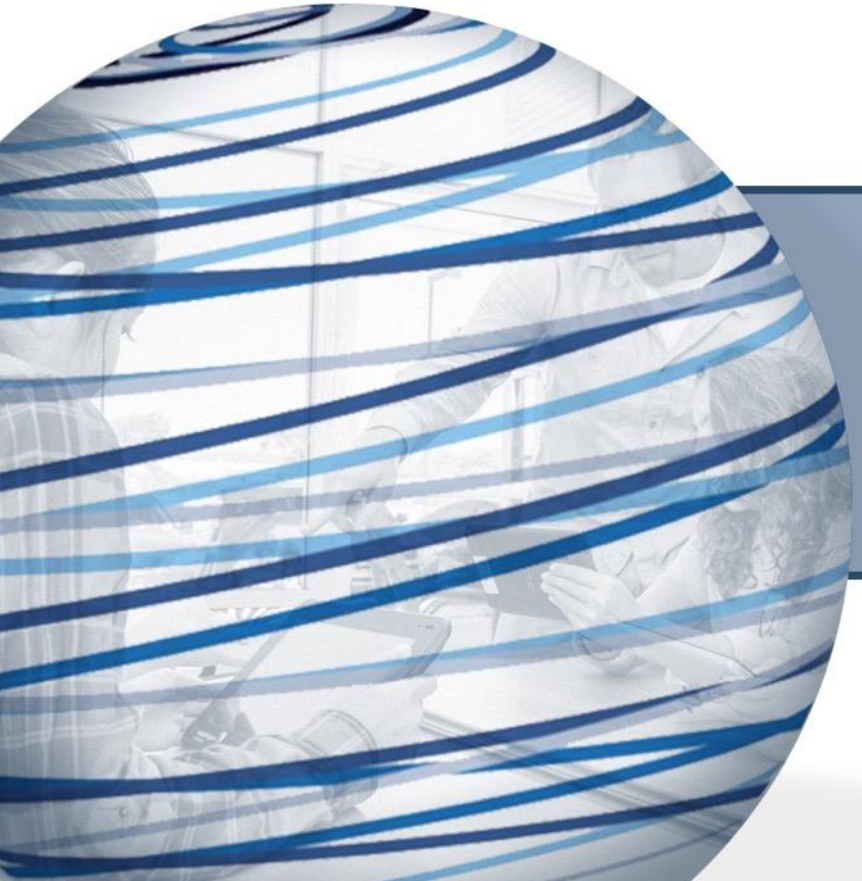

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Thank You